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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,512

02/15/2006

John Bernard Horstman

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EXAMINER

LOEWE, ROBERT S

ART UNIT

PAPER NUMBER

1796

NOTIFICATION DATE

DELIVERY MODE

12/02/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents.admin@dowcorning.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/568,512	<b>Applicant(s)</b> HORSTMAN ET AL.	
	<b>Examiner</b> ROBERT LOEWE	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/19/09.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17-32, 34 and 35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-23, 29-32, 34 and 35 is/are allowed.
- 6) ☒ Claim(s) 24-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's amendments to independent claims 17, 22 and 29 have overcome the prior art rejections to these claims. Regarding claims 17 and 22, Applicants have amended these claims such that aryl-containing carbinol groups are excluded from the carbinol-functional silicone resin. Harrod et al. (US Pat. 3,410,820) and Onishi et al. (US Pat. 4,614,675) only teach aryl-containing carbinol groups and do not teach or suggest employing carbinol groups which are free of aryl groups as required by instant claims 17 and 22.

Regarding independent claim 29, Applicants have incorporated the subject matter of now canceled claim 33 into claim 29. Claim 33 was indicated as allowable in the previous Office action. Thus, claims 29-32, 34 and 35 are allowable.

Independent claims 24 and 27 (and their respective dependent claims) were rejected in the previous Office action. Applicants have made no amendments nor have argued these rejections. As such, the rejections for claims 24-28 are wholly maintained.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 24 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Harrod (US Pat. 3,410,820).

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Example 7 of Harrod teaches the preparation of a carbinol-containing silicone resin via platinum-mediated hydrosilylation of a hydride-containing silicone resin with 2-allylphenol. The resin product of example 7 satisfies the values for a, b, c, and d for claim 24. The carbinol group has the formula  $-(CH_2)_3C_6H_4OH$ . Because Harrod teaches the same method as claimed in claim 24, the resin structure of example 7 also satisfies instant claims 24 and 26. Regarding the wt% of phenyl groups in the resin of example 7, a person having ordinary skill in the art can readily determine this as follows:

1) Normalize the units of the silicone resin in example 7 of Harrod to equal 1:

$$(0.24 + 0.4 + 0.72 = 1.36)$$

$$1/1.36 = 0.735$$

$$0.735 * 0.24 = 0.18 \text{ of phenylsiloxy T unit}$$

$$0.735 * 0.4 = 0.29 \text{ of dimethylsiloxy D unit}$$

$$0.735 * 0.72 = 0.53 \text{ of dimethyl,hydroxyphenylpropylsiloxy M unit}$$

As can be seen, the value of b is 0.29, which satisfies the proviso that the value of b be less than 0.3 when all the  $R^2$  groups are methyl.

2) Calculate the wt%:

$$0.18 * 1 \text{ phenyl group} * 77 \text{ g/mol} = 13.86 \text{ (77 g/mol is the approximate weight of a phenyl group)}$$

$$0.29 * 2 \text{ methyl groups} * 15 \text{ g/mol} = 8.7 \text{ (15 g/mol is the approximate weight of a methyl group)}$$

$$0.53 * 2 \text{ methyl groups} * 15 \text{ g/mol} = 15.9$$

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$0.53 \times 1 \text{ hydroxyphenylpropyl group} \times 135 \text{ g/mol} = 77.55$  (135 g/mol is the approximate weight of a hydroxyphenyl propyl group)

The total wt% of the groups is  $13.86 + 8.7 + 15.9 + 77.55 = 110.01$ , of which the wt% of the phenyl groups amounts to  $13.86/110.01$ , or approximately 13 wt%, which satisfies the proviso that the phenyl content be at least 10% by weight.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harrod (US Pat. 3,410,820) as applied to claim 24.

While Harrod does not explicitly teach a silicon resin which anticipates the structural limitations of instant claim 25, such resins are believed to be rendered obvious based on the

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teachings of Harrod. Specifically, Harrod teaches copolymeric organosiloxanes having the formula at 9:30 (claim 1). Such a formula suggests to a person having ordinary skill in the art to employ silicone resins having M, D and T units in amounts which would satisfy the ranges for a, b and c of instant claim 25.

Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrod (US Pat. 3,410,820) in view of Yoshino et al. (US Pat. 6,806,509).

Claim 27: Harrod teaches a silicone resin (example 7) having phenyl groups. The phenyl group content of the resin in example 7 is calculated to be approximately 13% by weight, based on 100 wt% of all of the substituents in the silicone resin. While Harrod does not explicitly teach a silicone resin having a phenyl group content of at least 30% as required by instant claim 27, Yoshino et al. teaches silicone resinous compositions useful as encapsulating materials (abstract). Yoshino et al. further teaches that it is advantageous to incorporate up to 80 mol% of phenyl groups in the silicone polymers. Harrod and Yoshino are combinable because they are from the same field of endeavor, namely, silicone-based encapsulating compositions. It is noted that incorporation of phenyl groups gives high refractive index cured compositions, which is a desirable property in silicone encapsulants (3:56-65 and 8:26-40). The silicone resins taught by Harrod are taught to be useful as encapsulating materials, therefore a person having ordinary skill in the art would appreciate and be motivated to incorporate a high phenyl group content.

Claim 28: While Harrod does not explicitly teach a silicon resin which anticipates the structural limitations of instant claim 28, such resins are believed to be rendered obvious based on the teachings of Harrod. Specifically, Harrod teaches copolymeric organosiloxanes having

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the formula at 9:30 (claim 1). Such a formula suggests to a person having ordinary skill in the art to employ silicone resins having M, D and T units in amounts which would satisfy the ranges for a, b and c of instant claim 28.

### *Allowable Subject Matter*

Claims 17-23 and 29-35 are allowed. Independent claims 17 and 22 have been amended to exclude aryl-containing carbinol groups. Harrod et al. and Onishi et al. only teach aryl-containing carbinol groups and do not teach or suggest employing carbinol groups which are free of aryl groups as required by the instant claims.

Independent claim 29 has been amended to include the limitations of previously allowable claim 33, thus placing claim 29 in condition for allowance.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

*Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT LOEWE whose telephone number is (571)270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. L./  
Examiner, Art Unit 1796  
6-Nov-09



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/Randy Gulakowski/

Supervisory Patent Examiner, Art Unit 1796